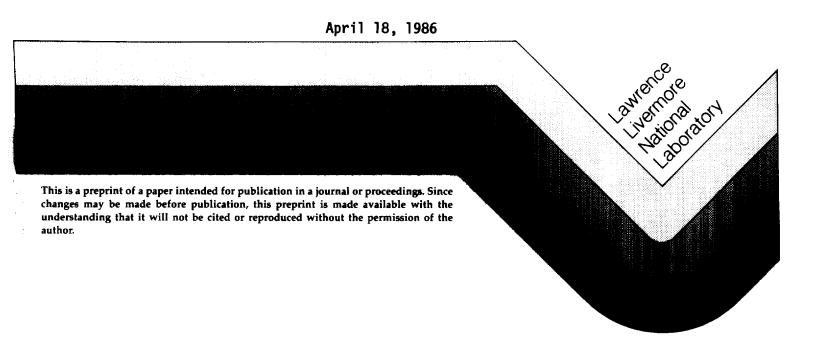
UCRL- 94482 PREPRINT

THE Be-Cd (BERYLLIUM-CADMIUM) SYSTEM

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This paper was prepared for submittal to Bulletin of Alloy Phase Diagrams



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The Be-Cd (Beryllium-Cadmium) System 9.01218 112.41

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Information about the Be-Cd system was given by [60Kle] and [60Yan] as cited by [65Ell]. No additional data have been reported since.

Cd was not retained in αBe solid solution [60Kel] (<<0.01 at.% at 800 °C [60Yan]). The melting point of βBe and the βBe --> αBe allotropic transformation temperature are 1289±4 and 1270±6 °C, respectively [85BAP]. The melting point of Cd is 321.108 °C [81BAP].

A summary of crystal structure and lattice parameter data for pure elements is given in Table 1.

Cited References

- 60Kle: J. Klein, L. Perelman, and W.W. Beaver, "Development of Wrought Beryllium Alloys of Improved Properties," WADC Tech. Rept. 58-478, pt. II, 24 and 110, Sept. (1960). (Equi Diagram; Experimental)
- 60Yan: F.M. Yans, "A preliminary Investigation of the Beryllium-Zinc Binary System," U.S. At. Energy Comm. NMI-1240, 41pp (1960). (Equi Diagram; Experimental)
- 65Ell: R.P. Elliott, <u>Constitution of Binary Alloys, First Supplement</u>, McGraw-Hill, New York or General Electric Co., Business Growth Services, Schenectady, NY 12345 (1965). (Equi Diagram; Compilation)
- 81BAP: "Melting Points of the Elements", <u>Bull. Alloy Phase Diagrams</u>, <u>2</u>(1), 145-146 (1981). (Equi Diagram; Compilation)
- 85BAP: to be published in <u>Bull. Alloy Phase Diagrams</u> (1985). (Equi Diagram; Compilation)

Acknowledgments

Be-Cd evaluation contributed by L.B. Tanner, L-217, Lawrence Livermore National Laboratory, P.O. Box 808, Livermore, CA 94550 and H. Okamoto, B77G, Lawrence Berkeley Laboratory, Berkeley, CA 94720. Work was supported by the U.S. Department of Energy under contract no. W-7405-Eng-48 and American Society for Metals (ASM). Literature searched through 1984. Part of the bibliographic search was provided by ASM. L.E. Tanner and H. Okamoto are ASM/NBS Data Program Category Editors for binary beryllium alloys.

Table 1 Be-Cd Crystal Structure and Lattice Parameter Data

Composition, Phase at.% Cd		Struktur- n bericht designation	Space group	Proto- type	Lattice parame a	ters, nm
(βBe) 0	c12	A 2	I m3 m	W	0.25515	
(αBe), 0	pb5	A3	P6⊜ ∕non c	Mg	0.22857	0.35839
(Cd)100	hP2	АЗ	P6 ⊕/mmc	Mg	0.29788	0.56167